

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

Claims 1-24(Canceled).

25 (Currently Amended): A diagnostic composition comprising an isolated polypeptide ~~of claim 50~~ having an amino acid sequence of 95% or greater sequence identity with the amino acid sequence of SEQ ID NO: 4, or having an amino acid sequence which comprises an epitope of said SEQ ID NO: 4, said polypeptide associated with a suitable detectable label.

Claims 26-29 (Canceled).

30 (Previously Presented): The composition according to claim 50, wherein said composition comprises a second polypeptide or protein.

31 (Previously Presented): The composition according to claim 30, wherein said polypeptide is fused to said second polypeptide or protein.

32(Currently Amended): The composition according to claim 30, wherein said second polypeptide or protein is an antigen from a pathogenic bacterial species that is heterologous or homologous to *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

33(Previously Presented): The composition according to claim 50, comprising an adjuvant.

34(Currently Amended): The composition according to claim 50, wherein said composition induces antibodies which also recognize a protein in multiple *Neisseria gonorrhoeae* strains and *Neisseria meningitidis* strains, said protein appearing as a reactive band of approximately 85 kD on a Western blot.

35(Previously Presented): The composition according to claim 34, wherein said *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

36(Previously Presented): The composition according to claim 34, wherein said *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonorrhoeae* FA19, *N. gonorrhoeae* FA635, *N. gonorrhoeae* FA1090, *N. gonorrhoeae* JS1, *N. gonorrhoeae* MS11, and *N. gonorrhoeae* F62.

Claims 37-38(Canceled).

39(Previously Presented): The composition according to claim 25, wherein said polypeptide is associated with nitrocellulose paper or a latex bead.

40(Previously Presented): The composition according to claim 25, wherein said composition comprises a second polypeptide or protein.

41(Previously Presented): The composition according to claim 40, wherein said second polypeptide or protein is fused to said polypeptide.

42(Currently Amended): The composition according to claim 40, wherein said second polypeptide or protein is an antigen from a pathogenic bacterial species that is heterologous or homologous to *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

Claim 43(Canceled).

44(Currently Amended): The composition according to claim 25, wherein said composition induces antibodies which also recognize a protein in multiple *Neisseria gonorrhoeae* strains and *Neisseria meningitidis* strains, said protein appearing as a reactive band of approximately 85 kD on a Western blot.

45(Previously Presented): The composition according to claim 44, wherein said *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

46(Previously Presented): The composition according to claim 44, wherein said *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonorrhoeae* FA19, *N. gonorrhoeae* FA635, *N. gonorrhoeae* FA1090, *N. gonorrhoeae* JS1, *N. gonorrhoeae* MS11, and *N. gonorrhoeae* F62.

Claims 47-49(Canceled)

50(Currently Amended): An immunogenic composition comprising an isolated polypeptide comprising an amino acid sequence having 95% or greater sequence identity with the amino acid sequence of SEQ ID NO: 4, and a pharmaceutically acceptable carrier, wherein said polypeptide in said composition induces antibodies in a mammalian patient mammal that bind to said amino acid sequence of SEQ ID NO: 4 and that interfere with the ability of *Neisseria gonorrhoeae* bacteria to adhere to mammalian epithelial cells in a gonococcal cell adherence assay.

Claims 51(Canceled).

52(Currently Amended):      The composition according to claim 50, wherein said polypeptide contains one to four conservative amino acid replacements in the amino acid sequence of ~~said amino acid sequence of~~ SEQ ID NO: 4.

Claims 53-54(Canceled)

55(New):      An immunogenic composition comprising a polypeptide and a pharmaceutically acceptable carrier, said polypeptide comprising an epitope of the amino acid sequence of SEQ ID NO: 4, wherein said polypeptide in said composition induces antibodies in a mammal that bind to said amino acid sequence of SEQ ID NO: 4 and that interfere with the ability of *Neisseria* bacteria to adhere to mammalian epithelial cells.